

# Work Order ID 86337

**\*86337\***

Page 1

June-27-12 3:17:47 PM

Item ID: D2432

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: 206 (24") Bearpaw

Start Date: 27/06/2012 Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 11/07/2012 Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals:

Process Plan: MLJ

Date: 12/06/12

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D2432	Rev F3					<b>(2)</b>			
120		0.00							
<b>*120*</b>	FLOW WATER JET								
Waterjet	<b>Memo</b>	0.00							
FLOW CNC Waterjet	Cut Blank as per D2432 File								<u>B12-7-5</u>
130		0.00							
<b>*130*</b>	HAAS CNC VERTICAL MACHINING #1								
HAAS 1	<b>Memo</b>	0.00							
HAAS CNC vertical machine #1	1-Inspect material for defects or damage prior to machining 2-Machine as per Folio and Dwg D2432 Identify as D2432F 3-Deburr								<u>PO/B. 12/07/10</u>
140		0.00							
<b>*140*</b>	QC2- Inspect parts off machine FAI/FAIB								
QC	<b>Memo</b>	0.00							
Quality Control									<u>PO/B. 12/07/10</u>

**(PTO)**

W/O: 86337		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2432 PAR #: \_\_\_\_\_ Fault Category: Mechanism NCR: Yes No DQA: Aut Date: 12/07/19  
 Resolution: \_\_\_\_\_ Disposition: Sealed QA: N/C Closed: ✓ Date: 12/8/20

NCR: 12-1595		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/07/10	130	DIM F goes Down to 0.228.  NC: Origin set too low. operator error	12/07/10 QS1042	ACCEPTABLE THIS PART ONLY (CITY 1). AREA OF BETTERDOWN IS NOT CRITICAL	BT 12-07-12	12/07/16	12/07/10 QS1042	DAS 16 9-8 12/9/16

NOTE: Date & initial all entries

# Work Order ID 86337

**\*86337\***

Page 2

June-27-12 3:17:47 PM

Item ID: D2432

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: 206 (24") Bearpaw

Start Date: 27/06/2012 Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 11/07/2012 Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

150

QC8- Inspect parts - second check

0.00

**\*150\***

*conf 12/10/16*

*2*

*10*

QC

Memo

0.00

Quality Control

151

Identify as per dwg & Stock Location: *495*

0.00

**\*151\***

*12/7/17*

Packaging

Memo

0.00

Packaging

190

QC21- Final Inspection - Work Order Release

0.00

**\*190\***

*12/7/18*

QC

Memo

0.00

Quality Control

*WMC  
12-07-18*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

June-27-12 3:17:50 PM

Page 1

Work Order ID: 86337

\*86337\*

Parent Item: D2432

\*D2432\*

Parent Item Name: 206 (24") Bearpaw

Start Date: 27/06/2012

Required Date: 11/07/2012

Start Qty: 2.00

Required Qty: 2.00

## Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB10		Purchased	No			120	sf	72.0100	3.7	7.4			

\*MUHMWB10\*

UHMW 1" Black

\*\*

B2-7-5

### Location

### Loc Qty

### Loc Code

MAT018

48.9

120972

1

121346

27.1

121954

20.8

MAT019

1.5

118814

1.5

ST052

21.60999474

121277

12.8

121278

8.80999474

122286

(2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DART AEROSPACE LTD		Work Order:	86337
Description: Bearpaw		Part Number:	D2432
Inspection Dwg: D2432	Rev: F3	Page 1 of 1	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Inspection Sheet Drawing Dimension		Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A	0.063 x 45°	+0.030/-0.010	0.063	✓		VERN	PHD-01
B	5.500	+/-0.030	5.502	✓		"	"
C	0.200	+/-0.030	0.197	✓		Mic	PHD-09
D	0.25 x 45°	+/-0.030	0.250	✓		VERN	PHD-01
E	R0.250	+/-0.030	0.250	✓		Rad gauge	
F	0.250	+/-0.010	0.250	✓		Mic	118-120
G	0.625	+/-0.030	0.627	✓		VERN	PHD-01
H	0.375	+/-0.010	0.380	✓		Mic	118-120
I	0.950	+0.030/0.010	0.960	✓		VERN	PHD-01
J	19.000	+/-0.030	19.000	✓		M TAP	PHD-11
K	3.14	+/-0.030	3.138	✓		VERN	PHD-01
L	3.28	+/-0.030	3.310	✓		"	"
M	Ø0.260	+0.005/-0.000	0.260	✓		"	"
N	Ø0.93	+/-0.030	0.930	✓		"	"
O	0.30	+0.030/-0.000	0.300	✓		Mic	PHD-09
P	23.750	+/-0.030	23.750	✓		M TAP	PHD-11
Q	7.375	+/-0.030	7.375	✓		H. gauge	
R	4.250	+/-0.010	4.250	✓		VERN	PHD-01
S	2.000	+/-0.030	2.000	✓		"	"
T	9.000	+/-0.010	9.000	✓		H gauge	
U	9.000	+/-0.010	9.000	✓		"	
V	0.375	+/-0.010	0.377	✓		VERN	PHD-01

Measured by: P0/8.2	Audited by: [Signature]	Prototype Approval:	N/A
Date: 12/07/10	Date: 12/07/10	Date:	

Rev	Date	Change	Revised by	Approved
A	04.01.09	New Issue	KJ/RF [Signature]	[Signature]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



F1	99-03-03	ADD DEC 9143	
F2	01-03-28	QOS WAS 00.75	RF
F3	02-01-23	CLAMPY CORE DMS	RF

93.06.17 KE

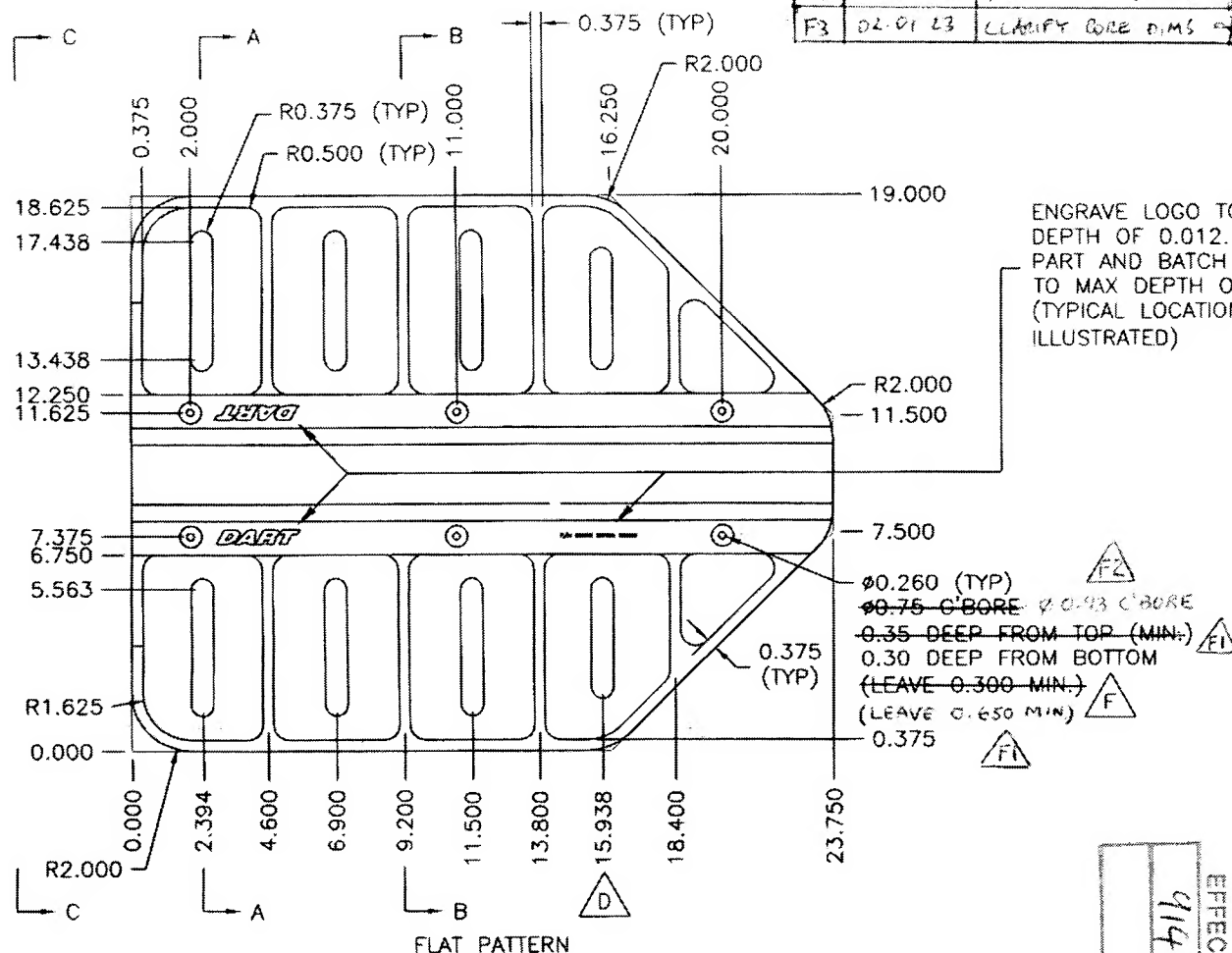
SECRET  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE  
WORK ORDER

96337

MLJ

12/06/28



ENGRAVE LOGO TO MAX  
DEPTH OF 0.012. ENGRAVE  
PART AND BATCH NUMBERS  
TO MAX DEPTH OF 0.010.  
(TYPICAL LOCATION AS  
ILLUSTRATED)

EFFECTIVE	DEOS
9143	

D2432F: FLAT BEARPAW  
D2432B: BENT BEARPAW

MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689  
1.00 THICK (MACHINE TO 0.950)

DESIGN	KE	DRAWN BY	KE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. F
CHECKED	MD	APPROVED	JS	DRAWING NO.	D2432	SHEET 1 OF 2
DATE	68.05.12		TITLE	BEARPAW		SCALE 1:6
A	95.10.31		NEW ISSUE			
B	96.01.24		RE-DESIGN			
C	96.03.26		CHANGE BORE AND C'BORE DEPTH			
D	96.06.04		MOVE SLOT			
E	97.02.27		CHANGE C'BORE DEPTH, BORE RADIUS			
F	98.05.12		CHANGE C'BORE, ADD B AND F P/N			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

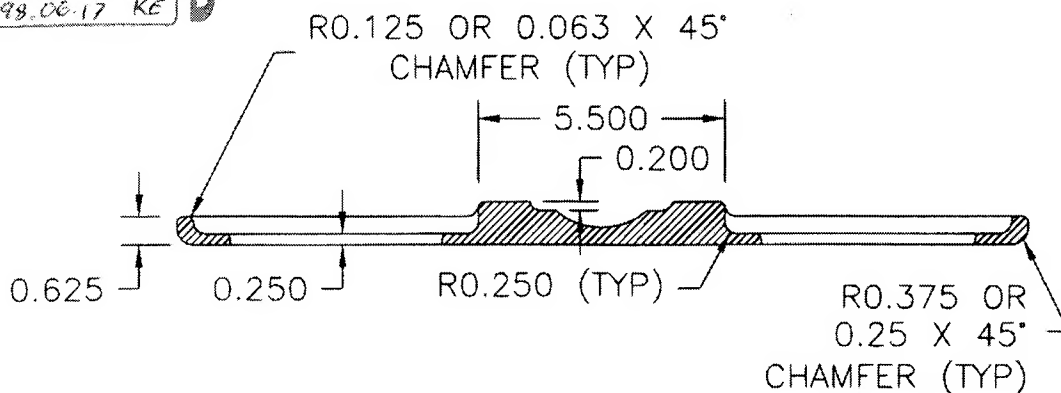
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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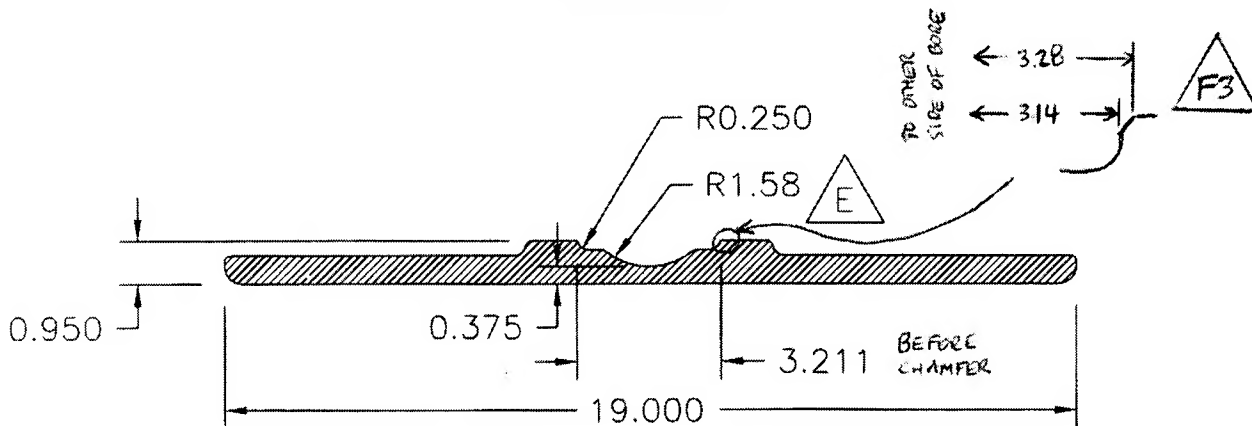


DESIGN KE	DRAWN BY KE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D2432	REV. F SHEET 2 OF 2
DATE 98.05.12	TITLE BEARPAW		SCALE 1:4

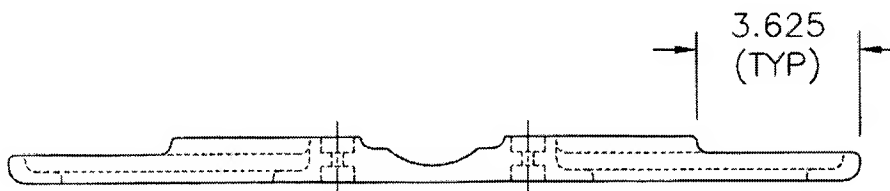
RELEASED  
98.06.17 KE



SECTION A-A



SECTION B-B



SECTION C-C

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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